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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	IC Docket No. 94-31
Preparation for International	)	
Telecommunication Union World	)	
Radiocommunication Conferences	)	

COMMENTS OF AERONAUTICAL RADIO, INC.

Aeronautical Radio, Inc. (ARINC), by its attorneys, hereby submits its comments in response to the Commission's Notice of Inquiry released herein May 5, 1994.

ARINC is the communications company of the air transport industry, formed in 1929 to provide needed communications services and expertise to civil aviation. Over the past 65 years, ARINC has participated in numerous conferences of the International Telecommunication Union (ITU) and other bodies relating to aeronautical radio communications and navigation systems. ARINC and the industry it serves are directly affected by the determinations made by the ITU at its World Radiocommunication Conferences.

In its Notice of Inquiry, the Commission has requested information and comment on the agenda items included in the results of the 1993 World Radiocommunication Conference (WRC-93) Final Acts. These comments will be used in developing the United States proposals and positions for the 1995 World Radiocommunication Conference (WRC-95) and the preliminary agendas for future WRCs. ARINC believes that:

- A permanent proceeding and industry advisory committee should be established for preparation of the biennial WRCs;
- A Report of the Voluntary Group of Experts should be carefully reviewed to avoid changing the substantive balance struck by previous conferences; and
- The aeronautical mobile-satellite service allocations in the 1.5/1.6 MHz bands should not be changed.

I.

Procedures for Preparation for Future World Radiocommunication Conferences

The ITU has begun a regular process of biennial World Radiocommunication Conferences to enable the world body to respond quickly to developing communications requirements rapidly changing communications technologies. The Commission has suggested that it open a permanent docket to prepare for these regularly recurring conferences. ARINC agrees. The Commission should keep the present inquiry open, which will lead to the regular interchange of views and information to enable the United States properly and effectively to prepare for the conferences.

In addition, the industry advisory committee should be established as a permanent committee to provide a framework for the development of consensus on matters relating to United States interests in communications. Although the committee might be permanent, working groups would be added

or deleted as the agendas for future conferences dictate. Active membership on the committee will also change with the changing interests in the subject matter of the WRCs, and the Commission should establish a procedure for rotating the Chairmanship. One procedure to rotate the chairmanship would be to appoint the Chairman for a fixed term ending two months after the next WRC. The two months would give time to wind up the activities associated with the WRC before beginning preparation for the next conference.

II.

The Report by the Voluntary Group of Experts

ARINC's Director of Frequency Management served as an advisor to the United States Voluntary Group of Experts (VGE) leading towards the development of the report. The Report[1] apparently consists of three parts: Part A - General Guidelines and Recommendations; Part B - Recommended Changes to the Radio Regulations; and Part C - Simplified Radio Regulations.[2] The decisions reached in the VGE Report appear basically sound on the surface; however, experience in the deliberations of the VGE indicates a desire of some of the

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[1] ITU, Report by the Voluntary Group of Experts to Study Allocation and Improved Use of the Radio Spectrum and Simplification of the Radio Regulations (1994)("VGE Report").

[2] As of this date, ARINC has not seen Part C and can, therefore, make no comment on this part of the VGE Report.

experts to use the "simplification" of the Radio Regulations as the means to make substantive changes in those regulations. ARINC will be carefully reviewing the VGE Report and will supply further comment as part of the preparatory work in this proceeding. When the WRC-95 considers the VGE Report, the United States' delegation must take pains to be certain that the simplification remains substantively neutral.

Part B of the VGE Report, especially, should be scrutinized with care. For example, Part B recommends that ITU Radio Regulation 3599 be amended to require that emissions from receiving equipment be reduced to the "lowest practicable value" instead of the present language requiring that emissions be reduced to the "lowest possible value." Aviation believes the current language provides better protection and should be retained. As we review the VGE Report, further problems undoubtedly will become evident.

As for Part A, aviation does not support VGE Recommendation No. 1/7. This Recommendation suggests that, in the future, WRCs should allocate frequencies to the more broadly defined service categories "to provide the maximum flexibility to administrations and spectrum use, taking into account technical, operational, economic and other relevant factors." Insofar as the aeronautical services are concerned, technical operational and economic factors would

dictate separate allocations to these services in most instances.[3] With regard to the aeronautical mobile and aeronautical mobile-satellite services, these services have distinct interference and operational characteristics from other mobile services that dictate a separate allocation. These aeronautical services are safety services entitled to a higher level of protection from harmful interference (ITU Radio Regulations 953).

In addition, aeronautical mobile communications are from aircraft that regularly fly above 40,000 feet. The service areas and interference characteristics from aircraft stations are completely different from earth bound mobile units. An aircraft at 40,000 feet can receive interference from, and cause interference to, ground stations over 300 miles away. Any non-aeronautical use within this service volume can result in interference to the safe operation of aircraft. This interference potential is currently mitigated by having Administrations agree, through the ITU, to limit the use of the spectrum allocation exclusively to aeronautical.

Spectrum efficiency is also served by dedicated allocations to the aeronautical services. Aeronautical radio services are international services, coordinated through the

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[3] We agree with the Voluntary Group of Experts Recommendation No. 1/18 that the aeronautical fixed service is no longer required as a separate service and should be deleted with consequential changes to Article VIII by WRC-95.

International Civil Aviation Organization (ICAO). The planning for and use of this spectrum is done on a worldwide basis so that aircraft can communicate with air traffic administrations and operational control services wherever they might fly.

The aviation industry and ICAO have effectively and efficiently planned for the use of the aeronautical frequencies based upon the capacity that was to be available. Aviation has been able, over the past 45 years, to operate its communications and navigation services within the confines of a stable allocation, introducing on a worldwide basis spectrum enhancing techniques as they have been required by the explosive growth of air transportation over the same period. Aviation continues its efforts to improve the efficiency of its use of spectrum resources and the next ICAO Comm/Ops Divisional Meeting scheduled for March 1995 will consider standards for further channel splitting or more intensive use of the aeronautical mobile VHF spectrum.

Also, combining aeronautical radionavigation and aeronautical radiolocation with a single service (radiodetermination) would not serve the public interest. Aeronautical radionavigation is always a safety service; radiolocation is usually not a safety service. As a general matter, safety and non-safety services should not be combined in a single allocation.

The VGE Report suggests that broader allocations are better because they give the individual Administrations greater flexibility in the use of the bands. If this were true, of course, the International Table of Allocations itself should be deleted. Without any ITU directed use of the spectrum, each Administration would be completely free to use the radio spectrum as it saw fit. This approach would lead to chaos.

Aviation agrees with Recommendation No. 1/8 that worldwide allocations be made wherever possible. As has been explained, aviation is international by its nature and requires common allocations and common standards throughout the world. Uniform worldwide allocations for most services are desirable, but for the aeronautical services, they are essential.

III.

Mobile Satellite Services

United States civil aviation remains opposed to any reallocation of the 1.5/1.6 MHz aeronautical mobile-satellite (R) service (AMS(R)S) bands to a generic mobile satellite service. The United States has sought such generic allocations at the past two World Administrative Radio Conferences (WARCs). While these WARCs rebuffed the United States on the generic allocations, they gave the United States the flexibility it required to implement a mobile

satellite service in this band and to demonstrate how priority and real time preemptive access would both protect safety communications and assure aviation that the needed capacity will be available to it. Because the United States mobile satellite system will not be launched until spring of 1995, the generic mobile satellite proponents will have no new empirical data to present. Until the United States can demonstrate how aviation will be protected, we should not revisit this issue.

Moreover, the AMS(R)S is a more mature service than the land mobile-satellite service (LMSS). International equipment standards have been developed for AMS(R)S, first through ARINC's AEEC activity and now through ICAO. ICAO Standards and Recommended Practices (SARPs) will be presented to ICAO Council in early 1995 for formal adoption.[4] No international or domestic standards for LMSS mobile earth terminals have been proposed. Thus, there is still no

[4] ICAO SARPs are adopted pursuant to Article 37 of the Convention on International Civil Aviation.

technical basis for sharing the AMS(R)S allocations with other services.

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ARINC and United States civil aviation will continue to review the VGE Report and to participate in the preparatory work for WRC-95, and will supplement these comments as appropriate.

Respectfully submitted,

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